

Amendments to the Claims:

1-82. (Canceled)

83. (Currently Amended) A rotary tool holder assembly for high speed rotation comprising a collet and a shaft, the collet being moveable relative to the shaft between a tool gripping position, in which an inserted tool can be gripped for rotation, and a tool release position, the shaft comprising a bore for receiving the collet, the shaft bore defining an inner surface and the collet defining an outer surface, the shaft and collet shaped such that when the rotary tool holder assembly is rotated at a high speed the inner surface of the shaft bore substantially fits the outer surface of the collet, wherein the outer surface of the collet and the inner surface of the shaft bore are tapered with respective taper angles, the collet and the shaft bore tapering radially inwardly away ~~front~~ from a tool receiving mouth of the collet such that when the rotary tool holder is stationary, the taper angle of the collet is greater than the taper angle of the shaft bore and at least one of the shaft and the collet is arranged such that when the rotary tool holder assembly is rotated at a high speed there is relative deformation between the outer surface of the collet and the inner surface of the shaft bore to give ~~the~~ a substantial fit therebetween, and wherein a friction reducing coating is provided between at least a portion of the inner surface of the shaft bore and the outer surface of the collet.

84. (Previously Presented) A rotary tool holder assembly according to claim 83 in which at least part of an outer surface of the collet which faces the inner surface of the shaft bore is coated with a friction reducing coating.

85. (Currently Amended) A rotary tool holder assembly according to claim 83 in which the collet comprises a plurality of jaw portions for gripping an inserted tool and the collet defines a main axis, at least one of the collet and the shaft are tapered so that axial movement of the collet relative to the shaft ~~one of causes and or~~ allows the jaw portions of the collet to move in a direction transverse to the main axis of the collet for gripping and releasing of an inserted tool.

86. (Previously Presented) A rotary tool holder assembly according to claim 83 in which the collet is carried by a bobbin arranged for axial movement within a bore of the shaft.

87. (Previously Presented) A rotary tool holder assembly according to claim 83 in which a spring is provided for biasing the collet towards the gripping position.

88. (Previously Presented) A rotary tool holder assembly according to claim 86 comprising a spring arranged for acting on the bobbin to bias the collet towards the gripping position.

89. (Previously Presented) A rotary tool holder assembly according to claim 87 in which at least a portion of the spring is coated with a friction reducing coating.

90. (Canceled)

91. (Previously Presented) A rotary tool holder assembly according to claim 87 in which the spring is disposed in a spring receiving bore which is provided in the shaft, at least a portion of the spring receiving bore being coated with a friction reducing coating.

92. (Previously Presented) A rotary tool holder assembly according to claim 83 in which the coating is applied to parts using a low temperature process to avoid changing the properties of the materials of the coated components.

93. (Currently Amended) A rotary tool holder assembly comprising:  
a collet carried by a shaft, the collet being moveable relative to the shaft between a tool gripping position, in which an inserted tool can be gripped for rotation, and a tool release position; and  
a spring disposed in a spring receiving bore for biasing the collet towards the gripping position, a friction reducing coating being provided between at least a portion of the spring and the spring receiving bore, wherein at least a portion of the spring is coated with a friction reducing coating.

94. (Previously Presented) A rotary tool holder assembly according to claim 93 which is arranged for high speed rotation.

95. (Previously Presented) A rotary tool holder assembly according to claim 93 in which at least one portion of the collet is coated with a friction reducing coating.

96. (Currently Amended) A rotary tool holder assembly according to claim 93 in which the collet comprises a plurality of jaw portions for gripping an inserted tool and the collet defines a main axis, at least one of the collet and the shaft ~~are tapered~~ has taper surfaces so that axial movement of the collet relative to the shaft ~~one of causes and or~~ allows the jaw portions of the collet to move in a direction transverse to the axis of the collet for gripping and releasing of an inserted tool and at least some of the taper surfaces of at least one of the collet and the shaft are coated with a friction reducing coating.

97. (Previously Presented) A rotary tool holder assembly according to claim 93 in which the collet is carried by a bobbin arranged for axial movement within a bore of the shaft.

98. (Previously Presented) A rotary tool holder assembly according to claim 97 in which the spring is arranged for acting on the bobbin to bias the collet towards the gripping position.

99. (Canceled)

100. (Previously Presented) A rotary tool holder assembly according to claim 93 in which the coating is applied to parts using a low temperature process to avoid changing the properties of the materials of the coated components.

101. (Canceled)

102. (Currently Amended) A rotary tool holder assembly for high speed rotation comprising a collet and a shaft, the collet being moveable relative to the shaft between a tool gripping position, in which an inserted tool can be gripped for rotation, and a tool release position, the shaft comprising a bore for receiving the collet, the shaft bore defining an inner surface and the collet defining an outer surface, the shaft and collet shaped such that when the rotary tool holder assembly is rotated at a high speed the inner surface of the shaft bore substantially fits the outer surface of the collet wherein the outer surface of the collet and the inner surface of the shaft bore are tapered with respective taper angles, the collet and the shaft

bore tapering radially inwardly away from a tool receiving mouth of the collet such that when the rotary tool holder is stationary, the taper angle of the collet is greater than the taper angle of the shaft bore and at least one of the shaft and the collet is arranged such that when the rotary tool holder assembly is rotated at the high speed there is relative deformation between the outer surface of the collet and the inner surface of the shaft bore to give ~~the~~ a substantial fit therebetween and wherein a friction reducing coating is provided between at least a portion of the inner surface of the shaft bore and the outer surface of the collet, the rotary tool holder assembly further comprising a spring disposed in a spring receiving bore for biasing the collet towards the gripping position, a friction reducing coating being provided ~~one~~ on at least a portion of the spring.

103. (Previously Presented) A rotary tool holder assembly comprising:  
a collet carried by a shaft, the collet being moveable relative to the shaft between a tool gripping position, in which an inserted tool can be gripped for rotation, and a tool release position; and  
a spring disposed in a spring receiving bore for biasing the collet towards the gripping position, a friction reducing coating being provided on at least a portion of the spring.

104. (Canceled)